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09/548,031	04/12/2000	David Wiener	WIE-003	5389

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David P Gordon Esq
65 Woods End Road
Stamford, CT 06905

EXAMINER

DABNEY, PHYLESHA LARVINIA

ART UNIT PAPER NUMBER

2643

DATE MAILED: 05/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/548,031

Applicant(s)

WIENER, DAVID

Examiner

Phylesha L. Dabney

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 4/15/05.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-56 is/are pending in the application.
- 4a) Of the above claim(s) 21-25, 32, 35, 39, 40 and 46-54 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 26-31, 33, 34, 36-38, 41-45 and 55 is/are allowed.
- 6) ☒ Claim(s) 1-9, 13, 14 and 16-20 is/are rejected.
- 7) ☒ Claim(s) 10-12 and 15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the advisory action and the finality of the last office action are withdrawn.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-3, 5-9, 13-14, 16-20 are rejected under 35 U.S.C. 103(a) over Boyden (U.S. Patent No. 5,815,579).

Regarding claim 1, Boyden teaches a wearable speaker system comprising: a garment including a first duct (14, 24; 56, 58; 76; 84, 92; 102, 104; 306) having lengthwise, widthwise, and heightwise dimensions which are perpendicular to each other (figs. 1-15) defining a chamber, and at least one sound transducer (10, 12; 72, 74; 82, 90; 106, 108; 302, 304) mounted in the duct. Boyden teaches the widthwise dimension as being variable and the heightwise dimension as approximately one (figs. 1-16). Furthermore, since the Boyden references allows the dimensions of the speaker system to be varied and it is known to construct speaker systems of any suitable dimensional ratio for obtaining a desirable placement of the system, a desired filter response, and the promotion of comfort and fit to the user, it would have been obvious to

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one of ordinary skill in the art at the time the invention was made to make the garment of Boyden with a widthwise to heightwise ratio of not more than 3 for the reasons stated above.

Regarding claim 2, Boyden discloses the first duct is adapted to flex without pinching off the first duct chamber (Boyden, fig. 2; col. 5 lines 24-34; col. 7 lines 4-13; col. 13, lines 61-63).

Regarding claim 3, Boyden does not teach the first duct having a substantially round cross-section, but the combination does teach adding filler (Boyden, acoustic transparent material). The examiner takes official notice that it is known in the art to include enough filler, such that a round cross-section is produced, for insulation purposes. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have a round cross-section by including filler in the invention of the combination for insulation purposes.

Regarding claim 5, Boyden discloses the second transducer faces outward toward an ear of the wearer (see figures).

Regarding claim 6, Boyden discloses the garment is one of a jacket, vest, and a shirt. (Boyden, col. 2 lines 55-61).

Regarding claims 7 and 14, Boyden discloses a second duct (14, 24; 56, 58; 76; 84, 92; 102, 104; 306) having first and second ends defining a second duct; and at least one second sound transducers (10, 12; 72, 74; 82, 90; 106, 108; 302, 304) mounted to the second duct.

Regarding claim 8, Boyden discloses the second duct is adapted to flex without pinching off the second duct chamber (Boyden, fig. 2; col. 5 lines 24-34; col. 13, lines 61-63).

Regarding claim 9, Boyden does not teach the second duct having a substantially round cross-section, but the combination does teach adding filler (Boyden, acoustic transparent

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material). The examiner takes official notice that it is known in the art to include enough filler, such that a round cross-section is produced, for insulation purposes. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have a round cross-section by including filler in the invention of the combination for insulation purposes.

Regarding claim 13, Boyden discloses the garment has a collar and one of the first and second duct is attached to the collar of the garment (Boyden's lapel, col. 5 lines 41-44).

Regarding claim 16, Boyden discloses the second duct defines at least one port (Boyden's vent, col. 2 lines 43-54).

Regarding claim 17, Boyden does not teach a first securing ring is coupled to the first duct adjacent the first end and a second securing ring is coupled to the second duct adjacent the second end, the first and second rings each being detachably coupled to the garment and at least partially securing the second duct to the garment. However, the examiner takes official notice that it would have been obvious to one of ordinary skill in the art at the time the invention was to include first and second securing rings at the first and second duct respectively, for reinforcing the location where a component would be attached to prevent tearing of the garment. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include first and second securing rings in the invention of the combination for reinforcement.

Regarding claim 18, Boyden discloses the speaker system comprising: an audio player (Boyden, col. 2 lines 64-67); and a transducer wire coupled to each of the sound transducers (Boyden, col. 8 lines 21-27).

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Regarding claim 19, Boyden discloses the audio player positioned in a pocket of the garment (Boyden, col. 2 lines 64-67; col. 8 lines 21-26; col. 14 lines 3-9).

Regarding claim 20, Boyden discloses the second duct crosses one of the shoulders of the garment (Boyden, figures 6-8).

2. Claim 4 is rejected under 35 U.S.C. 103(a) over Boyden (U.S. Patent No. 5,815,579), in view of Liautaud (U.S. Patent No. 4,322,585).

Regarding claim 4, Boyden teaches the at least first sound transducer comprising a first pair of sound transducers (10, 12; 72, 74; 82, 90; 106, 108; 302, 304). Boyden does not teach facing the pair of sound transducers inward toward the body. Liautaud teaches facing the pair of sound transducers facing inward toward the body of the wearer for promoting mechanical sound transmissions (col. 3, lines 6-10). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to position the first pair of transducers inward in the invention of Boyden, as taught by Liautaud, for promoting mechanical sound radiation.

Allowable Subject Matter

3. Claims 26-31, 33-34, 36-38, and 41-45, 55-56 are allowed.

4. Claims 10-12 and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

The indicated allowability of claim 1-9, 13-14, 16-20 are withdrawn in view of the newly discovered reference(s) to Boyden (U.S. Patent No. 5,682,434) to support to official notice statement(s) above.

In addition, the applicant's arguments with respect to claims 1-9, 13-14, and 16-20 received 04 October 2004 are addressed below.

With respect to claim 1, the applicant argues that the Boyden '579 does not teach a dimensional relationship of not more than 3 and requests a representation of a system which has a duct dimension of not more than 3. The examiner is supporting the official notice statement presented in claim 1 with Boyden (U.S. Patent No. 5,682,434; figs. 3-4) which teaches creating a duct ratios with this dimension requirement.

With respect to claim 2, the applicant argues that the Boyden '579 does not teach a duct adapted to be flexed without pinching off the first duct. The examiner disagrees with this statement. As clearly shown in Boyden (fig. 2; col. 5 lines 24-34; col. 7 lines 4-13; col. 13, lines 61-63), the reference states that the system is flexible in the specification at the column and lines disclosed and shows that the system lacks pinching off in figure 2.

With respect to claim 3 and 9, the applicant argues that there is not filler in the Boyden ducts. The examiner would like to point out that *the claim does not stated that the filler is in the duct*, the claim merely states that the duct has a rounded cross section. In light of how the claim limitation reads and the fact that the applicant's invention in addition the cited Boyden reference teaches the ducts contouring and being placed on the surface of the garment, such as jacket, coat, vest, etc., Boyden allows for filler within the garment, the Boyden references and the applicatnt's

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invention teach flexible ducts, and it is extremely well known for garments to exhibit puffed/stuffed appearance due to fillers being added for insulation and added warmth, it is reasonable and well within common knowledge of the art for a flexible duct given the prescribed circumstances to have a rounded cross section. The rejection is being maintained.

Conclusion

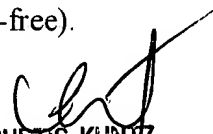
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phylesha L. Dabney whose telephone number is 571-272-7494. The examiner can normally be reached on Mondays, Tuesdays, Wednesdays, Fridays 8:30-4 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz can be reached on 571-272-7499. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

April 30, 2005


PLD


CURTIS KUNTZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600